DOCUMENT RESUME

ED 443 349 HE 033 106

TITLE	Graduate Employment: A Review of Issues. A Report to the HEFCE by the Centre for Higher Education Research and Information, Open University.
INSTITUTION	Open Univ., London (England). Centre for Higher Education Research and Information.
SPONS AGENCY	Higher Education Funding Council for England, Bristol.
ISBN	ISBN-1-902-369-300
PUB DATE	2000-00-00
NOTE	28p.
AVAILABLE FROM	Higher Education Funding Council for England Publications, Northavon House, Coldharbour Lane, Bristol BS16 1QD, England (5 British pounds). Tel: 0117-931-7123; Fax: 0117-931-7463.
PUB TYPE	Information Analyses (070) -- Reports - Evaluative (142)
EDRS PRICE	EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*College Graduates; Comparative Analysis; *Education Work Relationship; Educational Benefits; Educational Status Comparison; Employers; Employment Opportunities; *Employment Potential; Foreign Countries; Higher Education; *Job Applicants; Job Satisfaction; *Job Skills; Labor Market; Relevance (Education)
IDENTIFIERS	*United Kingdom

ABSTRACT

This report examines what is currently known about the employment of college graduates in the United Kingdom (U.K.). The first two sections offer an historical and comparative overview of the issue and a discussion of the methodology. A third section examines and discusses findings from the literature on employer needs and wants. This is followed by an examination of graduates' experiences in the labor market. A concluding section examines the concept of "employability" and considers how it can best be measured. The study finds that, while employers want graduates who are flexible and adaptable, with good communication and general skills, what they get are graduates with good cognitive skills and knowledge. Comparisons with other European countries suggest that in the U.K. institution matters more (low level of vertical substitution) and subject studied matters less (high level of horizontal substitution). The study found little graduate unemployment and average earnings that were higher than those of nongraduates. A majority of graduates find their degree studies useful in their work, although this work may not always be considered "graduate level" employment. In examining the validity of employability indicators, the report sees a need for these measures to be multidimensional and able to distinguish between factors relevant to obtaining a job and those relevant to preparation for work. (Contains 38 references.)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 443 349

Graduate employment: a review of issues

A report to the HEFCE by the Centre for Higher Education Research and Information, Open University

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY HAS BEEN GRANTED BY
R. KIER
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

HE 033 106

Contents

	Page
Introduction	1
A historical and comparative overview	2
Problems of interpretation and method	5
What employers want	8
Graduates' experiences of employment	13
Employability and its measurement	19
Summary and conclusions	21
References	23

ISBN: 1 902 369 300

Introduction

The first major national study of the employment of graduates carried the sub-title 'the sociology of an elite' (Kelsall et al, 1972). Such terminology would not be used today. The expansion of higher education over the last 30years has, in the UK as elsewhere, removed the sense of exclusivity attached to participation in higher education and to being a graduate. Graduates account for getting on for 20 per cent of the labour force, with a much higher figure in younger age groups as higher education participation rates reach around 35 per cent.

The expansion of higher education has been accompanied by great expectations of substantial economic and social benefits. It has also been accompanied by concerns about over-expansion, about quality, and about mis-matches between the output of higher education and the needs of employers. Writing from an international perspective, Ulrich Teichler has noted an oscillation of periods of optimism and pessimism over the last 30 years regarding higher education's contribution to economic well-being (Teichler, 1998). Teichler has also noted the limitations in the evidence on which to base such views, a point made in an earlier study by Roizen and Jepson who referred to the 'high ratio of value to fact' in debates about graduate employment (Roizen and Jepson, 1985, p172).

While it remains true that the knowledge base for discussion about graduate employment is limited and many important questions cannot be answered, it is also true that a knowledge base exists and that it is insufficiently used in policy discussions. The purpose of this paper is to set out what is currently known about graduate employment in the UK (and to some extent in certain other countries) and to point up some of the gaps in our knowledge. In order to do so, it will also be necessary to address a number of methodological issues. However, the emphasis will be on what we reliably do know rather than on what we do not.

In this spirit, before setting out a framework for the rest of this paper, it may be useful to highlight some of the main things we do know about graduate employment. Graduates:

- are unlikely to experience long-term unemployment
- are likely to earn substantially more than people with an upper secondary education
- are likely to experience high levels of job satisfaction and responsibility in the long term
- are increasingly likely to experience a transitional period of several years between leaving higher education and entering 'long-term' employment
- will have different experiences in the labour market according to what and where they have studied, as well as according to a wide range of other educational and socio-biographical characteristics.

The above findings appear to be more or less constant for all developed societies. It is in the last bullet point – graduate differences – that differences between countries are to be found. Some possible reasons for these will be suggested later in the paper.

This paper is structured as follows. The next section attempts to provide a historical and comparative overview of graduate employment in the UK. Section three considers some of the methodological difficulties in interpreting evidence about graduate employment. Section four examines evidence about employer 'needs' and 'wants'. Section five considers evidence about graduates' experiences in the labour market. And the final section looks at the concept of 'employability' and considers how it can best be measured.

A historical and comparative overview

It is not difficult to make a case for the relative efficiency of the UK higher education system in supplying graduates to the labour market. A number of features can be discerned from comparative data:

- the young average age of British graduates
- the high completion rates
- the comparatively low levels of graduate unemployment
- the comparatively high salary differentials between graduates and non-graduates
- high levels of horizontal substitution in the labour market, implying flexibility and adaptability
- the comparatively low levels of expenditure per student.

To consider each of the above features in turn. Typical age of graduation in the UK is 21, compared with 26 in Germany and a range between 23 and 27 in most other European countries (OECD, 1997, p335). An average completion rate of 81 per cent in the UK compares with 72 per cent in Germany, 55 per cent in France and 63 per cent in the US. Of OECD member states, only Japan has a higher completion rate at 90 per cent (OECD, 1998, p30). In other words, of initial enrolments in higher education, a higher proportion of UK students graduate and they do so more quickly than in any other European country. This should imply a larger number of years of active participation in the labour market although this is not fully supported by OECD figures. The figure of 34.3 years for the UK is virtually the same as the OECD mean (34.4) and compares with the US at 35.2, Germany at 34.2 and France at 33.6. In common with statistics from other countries, it is a significantly higher figure than for people without higher education: 31.8 years of employment for those with upper secondary education and 25 years for those with less than upper secondary education.

Despite their younger than average age compared with their counterparts elsewhere in Europe, UK graduates appear less likely to experience unemployment immediately following their graduation. In a compilation of recent statistics and surveys, Teichler notes an unemployment rate of 8 per cent among UK graduates (1996 data) compared with 16 per cent in Japan (1995), 12 per cent in Norway (1995), 20 per cent in Italy (1992) and 6 per cent for graduates from the non-university sector in the Netherlands (1996) (Teichler, 1998a). As many of these figures are based on data collected at a time later than the UK's annual collection 6 months after graduation, if anything they underestimate the comparative UK advantage. The greater levels of support and advice offered to UK students through their university careers services may be one of the reasons for this (Teichler, ibid., p25).

Graduates earn significantly more than non-graduates. Differentials are particularly high in the UK. Of 20 OECD countries, the UK had the fifth highest differential between graduates and people with upper secondary qualifications. Using an index where an upper secondary education equalled 100, UK graduates scored 181. Comparative figures for German graduates were 158, for French graduates 178, for Swedish 153 and for US 183. Differentials for women graduates (compared with women with upper secondary education) were higher in the UK (190) than in any other OECD country (OECD, 1998, p 351). These figures reflect the greater inequalities of income in the UK and US compared with most European countries.

Horizontal substitution in the labour market refers to the specificity of the links between field of study and area of employment, e.g. whether engineers can be substituted by science graduates, or business graduates by arts graduates. It can be regarded as a rough measure of flexibility in the relationship between higher education and employment. The flexibility in UK graduates has been indicated in a study by Bee and Dolton (1990), who noted a substantial increase in proportions of British arts graduates entering jobs in the commercial sector, from an average of 4 per cent between 1961/2 to 1973/4 to an average of 11 per cent between 1973/4 to 1986/7 (Bee and Dolton, p36). As Teichler points

out, links between field of study and area of employment have traditionally tended to be more open in the United Kingdom than in most other European countries (Teichler, 1996, p73).

Finally, recent OECD figures also point out the relatively low expenditure per student in the UK. Of 10 countries for which data were given, expenditure per student per year of study in the UK was third lowest next to France and Italy (and behind Australia, Germany, Japan, Netherlands, New Zealand, Sweden and the US). When length of study is taken into account, the cumulative average cost of educating a student in the UK is 24,563 US dollars compared with 45,023 in Germany and 35,202 in the Netherlands (OECD, 1998).

Looking comparatively, therefore, UK higher education appears to be serving the labour market cost effectively. Historically, the number of graduates experiencing difficulties in entering the labour market has increased (from 2 per cent in 1965/7 to 8 per cent in 1996) although much higher figures were recorded in the early 1980s (16 per cent in 1980/1). The figures for the 1980s should be noted in the context of contemporary discussions. Problems of adjustment between the supply of new graduates and labour market demands are not a new phenomenon of the 1990s. Arguably, the expansion of higher education during the 1970s was more significant in altering relationships between higher education and employment than anything which has happened since. As far as earnings are concerned, the differentials between graduates and people with upper secondary education appear to be higher for younger age groups in the UK (aged 30-44) than for graduates as a whole (OECD, 1998, p358). This does not suggest that the earnings benefits of a degree have declined with expansion of higher education.

The above paragraphs provide only crude data on graduate employment in the UK. But insofar as they reflect the actions of employers, they appear to indicate a high level of demand, as reflected in low levels of graduate unemployment and high salary differentials with non-graduates.

It could be argued that the data referred to above do not take into account the virtual doubling of student numbers in UK higher education during the 1990s and the greater heterogeneity of the student population in terms of background, ethnicity, etc. The impact of this expansion on employment opportunities and experiences for graduates remains to be seen. It is worth referring, therefore, to the experience of the US where even higher participation rates in higher education have existed for several decades. In their comprehensive survey of the research literature on the various ways in which college attendance affects students, Pascarella and Terenzini report that:

> 'Our best estimate is that independent of an individual's background, a bachelor's degree confers about 34 percentile point advantage in occupational status or prestige over and above graduating from high school .... The evidence also suggests that the job status advantage that accrues to college graduates is not simply a function of the first job obtained. Rather, the significant occupational status differences between high school and college graduates are sustained over the occupational life span.'
>
> (Pascarella and Terenzini, 1991, p488)

Reporting specifically on earnings, Pascarella and Terenzini note that even when factors such as intelligence, socio-economic background and work experience are controlled for, there remains an earnings advantage of between 20 and 40 per cent for a bachelor's degree over a high school diploma (ibid., p528).

A paper by Court and Connor in 1994 reaches similar conclusions. Reviewing the available evidence on the US labour market for graduates for the then Employment Department, the authors are able to conclude that 'US graduates continue to do significantly better in the labour market than those with lower levels of education' (Court and Connor, 1994, p xiii). Court and Connor report average monthly incomes of college graduates 60 per cent higher than those of people who left school at 18 (although these do not correct for the effects of background factors). Unemployment and labour force participation rates all confirm considerable advantages to graduates in the US labour market (ibid.).

International research, therefore, supports the available British data that labour market demand for graduates remains high even when mass levels of higher education participation have been achieved. Significantly lower chances of unemployment, more prestigious jobs and higher earnings are the prospects for the vast majority of graduates.

These findings do not, of themselves, imply that the needs and wants of employers are being fully met. Nor do they imply that graduates are obtaining useful and fulfilling work which makes good use of the knowledge and skills they acquired in higher education. They tell us very little about the processes of graduate recruitment and utilisation that are taking place in the British labour market. They do not indicate differences between types of graduate or between types of employment. They do not provide evidence of causality, of why graduates are so advantaged. These issues will be explored in later sections of this paper. But they do suggest that the expansion of higher education has not lessened the willingness of employers to employ graduates and to reward them well financially.

Problems of interpretation and method

Despite the generally positive picture which emerges from the brief overview presented in the previous section, the relationship between higher education and work has been the subject of considerable debate in recent years, much of it critical of existing practices. The inferences have been that higher education is producing 'too many' or the 'wrong sort' or 'too many of the wrong sort' of graduates. What evidence is there to substantiate these concerns?

In a paper to the UNESCO World Conference on Higher Education in 1998, Ulrich Teichler noted that:

> 'Divergent views persist because systematic information on graduate employment is scarce and there are no indisputable criteria for assessing graduate employment…All in all, the signals from the employment system are more blurred and ambivalent than ever before.'
>
> (Teichler, 1998, p3)

The absence of clear criteria is one of the chief reasons why there are so many contradictory claims made about graduate employment. One of the difficulties may be the attempt to use the same criteria (and related measures) to assess increasingly diverse programmes and institutions of higher education. Higher education courses relate to employment in many different ways (Boys et al, 1988; Silver and Brennan, 1988; Pearson, 1984).

Criteria such as unemployment ratios, earnings, curriculum relevance and so on have very different applicability to different types of course. To take one rather obvious example, it is no use blaming higher education for the low rates of pay of nurses, yet this is precisely what analyses of graduate employment in terms of earnings do for nursing graduates.

While it is clear from the previous section that graduate unemployment is not a serious problem in the UK, there may still be problems connected with the suitability of employment gained by some graduates and the effectiveness of the preparation for employment which they have experienced in higher education. In his UNESCO report, Teichler refers to four types of problem. The first is the transition from higher education to employment, a period which for many graduates has become longer and more complex.

> 'Transition from education to work is one of the major passages in life which is developing its own dynamics more and more in terms of raising and dashing hopes, reinforcing or challenging the weight of educational achievement, underscoring the specific talents required and opportunities arising at a particular moment in time. This pertains to the eternal question of the link between equality, achievement, shrewdness and mere luck.'
>
> (Teichler, 1998, p7)

One of the distorting aspects of the debate about graduate employment is that much of the available evidence relates only to this transitional period.

The second problem referred to by Teichler is the mismatch between 'certain fields of study and the demand for graduates of certain profiles' (ibid., p7) although this problem is likely to be much less in those countries – such as the UK – where 'the links between fields of study and occupational areas are relatively loose' (ibid.).

The third problem cited by Teichler is the perception of *'over-education'* or *'under-employment'*.

> 'Many graduates end up in jobs considered unsuitable for graduates as far as socio-economic status is concerned and which only offer limited opportunities for utilising their skills on the job …It must be pointed out in this context that the criticism of an over-supply of graduates on the one hand is often combined with the claim on the other hand that many graduates often lack the competencies required.'
>
> (ibid., p8)

We shall consider in a later section what evidence exists to support claims of over-education or under-employment. But it is worth noting here that such claims frequently confuse issues of job status with those of work requirements. It can certainly be argued that the *work requirements* of some jobs in some organisations have become more complex and

demanding without any commensurate increase in status or rewards. Changes in the opposite direction occur in other jobs.

The fourth problem referred to by Teichler in his UNESCO paper concerns *stability* and *security* of employment.

> 'Insecure employment conditions have become quite common, at least during the first few years after graduation, new graduates being forced to accept part-time jobs, a combination of a few small contracts and jobs, or employment for a limited period of time.'
>
> (ibid., p8)

Insofar as instability and insecurity are increasingly common features across all parts of the labour market, employment statistics for the UK and virtually all other developed countries indicate that graduates are less likely to suffer the adverse consequences of these features than other workers.

In assessing the seriousness of problems in the employment of graduates and the actions which higher education institutions, employers and others might take in order to address them, it is useful to bear in mind a number of distinctions. Perhaps the most important concerns the distinction between *recruitment* to a job and *preparation to do the job*. The first is something about which employers have the dominant say; the second is something which is much more in the power of higher education institutions. There is considerable evidence to suggest that the efforts made by many higher education institutions over the last two decades to improve the direct employment relevance of their courses have not been met by an increased propensity by employers to recruit the graduates from such courses (Brennan et al, 1995, Brown and Scase, 1995). We will consider data on employer demands and preferences in the next section, but the different relationships which can exist between higher education courses and employment along both recruitment/selection and preparation/training dimensions need bearing in mind when interpreting any employment data for particular groups of graduates. In a previous study, a classification of higher education courses into four categories based on the above dimensions revealed a strong relationship with employment outcomes (Brennan and McGeevor, 1988, Brennan et al, 1993).

To illustrate the point, where job preparation is only partially completed in a first degree and where the degree provides a necessary pre-requisite but not a full qualification for entry to a particular job, a period of postgraduate study and training is likely to be required during the transition between higher education and employment. For such jobs, this pattern is normal, indeed obligatory. A recent study of graduates from Sussex University (Connor and Pollard, 1996) found that 60 per cent of graduates had undertaken some form of postgraduate study in the five years after completing their first degrees. Studies of graduate employment which do not look beyond the transitional period and processes can easily misinterpret what is going on. Preparation/training to perform a job is unlikely to be complete at the end of the first degree whether or not recruitment decisions are made at this time.

Methodological problems in the analysis of graduate employment data concern the measures used, the timescales involved and the units of analysis employed.

Measures can be divided between the *objective* (employment status, type of job, earnings) and the *subjective* (perceptions of underemployment, of skills required/utilised, of employers' preferences). Although the former may be preferred as a better indicator of realities (as opposed to the accompanying rhetorics) of graduate employment, the latter may provide crucial insights into the processes involved and the changes taking place. A limitation of many studies is that single indicators are used to describe what are essentially multi-dimensional phenomena. We will return to this point in the final section on employability.

Timescales present a major limitation of many studies. The increasing length and complexity of the transitional period between higher education and employment make first destinations data of very limited value, and even reduce the usefulness of surveys two or three years after graduation. Studies of graduate employment three or more years beyond the date of graduation show a very different

picture from studies based on data collected at an earlier point (Brennan et al, 1993).

Finally, survey information can be misleading if inappropriate aggregations of data are used in the analyses. These concern particularly the subject groupings used; social and biographical background variables (e.g. age, gender or ethnic balance) can also have major effects on the results of studies, but these may be disguised unless some form of multivariate analysis is employed.

In his review of existing work for UNESCO, Teichler concludes that 'the available information on graduate employment, work and utilisation is often lopsided, biased or insufficiently scrutinised' (ibid., p11). He identifies four common deficiencies:

i. Information is more extensive in traditional graduate employment sectors than in newly emerging, atypical and informal sectors; as the latter are growing while the former may be shrinking, the disparities in available information could lead to an unnecessarily pessimistic view about graduate employment.

ii. There is a lack of qualitative data.

> 'We identify a wealth of studies on the whereabouts of graduates and their income whereas information is often poor regarding types of work tasks and the extent to which the knowledge acquired during the course of study is eventually utilised on the job ... As a result, data on income and occupational categories of graduates are often overinterpreted as valid indicators of the utilisation of knowledge.'
>
> (ibid., p11)

iii. Employers' statements are often taken as direct and objective information concerning demand in the employment system. (Teichler notes that employers' expectations regarding the education system are often inconsistent with their recruitment and personnel policies.)

iv. Neither graduates, their supervisors nor heads of personnel can be expected to be knowledgeable experts on the *appropriate* links between skills and work tasks, and yet many research studies treat their views as statements of objective fact.

Bearing in mind these limitations in the available information about graduate employment, we now turn to consider in more detail what is known about employers' requirements and graduates' experiences.

What employers want

Recent statements by and studies of employers have emphasised the changing nature of the labour market and of employing organisations, the certainty of continual change and implications for graduates' jobs in terms of uncertainty, instability and change. Thus, in a recent study by Harvey et al, employers are reported as wanting 'adaptive', 'adaptable' and 'transformative' employees (Harvey et al, 1997). A DfEE study of small and medium sized enterprises, conducted by researchers at Sheffield Hallam University, found that employers commonly perceived graduates' qualities to be 'an ability to learn, intelligence, ideas and imagination, and good communication skills' (DfEE, 1997, p iv). A few years earlier, a report from the Association of Graduate Recruiters noted that flattened hierarchies and increasing uncertainties in organisations would call for 'sound business knowledge, creativity, patience, analytical skills, personal responsibility and initiative' (AGR, 1993, p iv). Several of these studies have referred to the concept of 'growing jobs' and to the value of graduate employees in driving growth and change in what might previously have been jobs occupied by less qualified employees.

This apparent emphasis by employers upon what might be termed generic skills and competencies in graduates has been matched within higher education by such initiatives as the Graduate Standards Programme undertaken by the Higher Education Quality Council and its successor body, the Quality Assurance Agency for Higher Education. A desire to describe the outcomes of higher education programmes in terms relevant to the needs of employment is a key characteristic of initiatives of this sort. These UK trends towards a greater emphasis on generic skills appear to be mirrored internationally. In his UNESCO paper, Ulrich Teichler notes an 'amazing consensus' about the attributes expected of graduates.

'If we look in detail at the wealth of proposals made in various countries by employers, committees considering the future of higher education and the majority of researchers analysing the connections between higher education and work, graduates are expected to:

- be flexible
- be able and willing to contribute to innovation and be creative
- be able to cope with uncertainties
- be interested in and prepared for life-long learning
- have acquired social sensitivity and communicative skills
- be able to work in teams
- be willing to take on responsibilities
- become entrepreneurial
- prepare themselves for the internationalisation of the labour market through an understanding of various cultures
- be versatile in generic skills which cut across different disciplines, and be literate in areas of knowledge which form the basis for various professional skills, for example in new technologies.'

(Teichler, 1998, p17)

However, Teichler recommends a degree of caution in interpreting these calls for more emphasis on general skills. He notes a tendency for studies to underestimate the continuing importance of specialist skills. In part, this is because it is usually general managers and personnel staff who are asked to respond to questionnaires and interviews from researchers. In part, there may be a tendency to confuse the general with the most frequently mentioned. Thus:

> '.... general job requirements tend to be similar across a variety of job tasks and are therefore more likely to be mentioned frequently than are the specific skills needed for various professional areas.'
>
> (Teichler, 1998, p18)

Notwithstanding such reservations, there does seem to be a greater emphasis today – especially in the international literature – upon general knowledge, skills and competencies. In contrast, the report on higher education and the labour market by Lindley (as part of the Leverhulme Programme of Study into

the Future of Higher Education in 1981) was much more concerned about supply and demand for graduates in particular subjects, emphasising concern about shortages in technology specialists (Lindley, 1981). However, it is also worth recalling that 47 per cent of all employers providing evidence to the 1997 Dearing Report reported shortages of different types of specialists, mainly but not exclusively engineers (Dearing, 1997, Appendix 4, p32). This figure should alert us to the possibility that the rhetoric of employers may not fully reflect realities. There may be rather greater continuities in the graduate labour market than appear at first sight.

We have been considering so far employers' statements of what they want from graduates. Are they satisfied with what they get? According to the survey conducted for Dearing, around half of the employers were satisfied and half dissatisfied with the skills and attributes of their graduate employees (ibid., p30). But it is interesting to note that the Dearing study found that the advantages of employing graduates were more likely to be found in:

> 'their thinking, learning and "technical" skills (e.g. information technology and foreign languages) than in their "applied" skills (e.g. working in a team, problem solving) and in their preparation for work (e.g. understanding employers' constraints).'
>
> (ibid., p30)

This emphasis is also reported in the DfEE study previously mentioned where firms which recruited graduates were more likely to express a preference for recruiting them to specific posts than to general managerial roles (DfEE, 1997, p iv).

In other words, the strengths of graduates appear to lie in traditional cognitive qualities rather than in more applied dispositions and skills. Such a proposition would be supported by previous studies (e.g. Roizen and Jepson, 1985) and, as we shall see in a moment, by the actions of employers in graduate recruitment.

The study for Dearing noted above reported considerable variations in the views of employers about the sorts of graduates they needed and the sorts of graduates they were able to recruit. Views could differ between divisions and units of a single company. Moreover, differences in views could not be related to factors such as size or type of employer. This brings us to consider some of the reservations which have to be made about our knowledge of the views and wishes of employers.

The criticisms contained in a study undertaken by researchers at Brunel University in the 1980s are almost certainly still valid today (Roizen and Jepson, 1985). It is worth recording some of the main ones. First, most studies are still biased in favour of traditional large graduate recruiters and, within them, biased to jobs and recruitment streams which have traditionally been the preserve of graduates. Most of the studies cited recognise this, and most have made efforts to correct this bias but, even so, most of the samples reported appear to over-represent the large at the expense of the small and medium-sized employer. (The DfEE study by the Sheffield Hallam researchers is an important exception.) Second, even within employing organisations, as we have already noted, it is likely that the views of general and personnel managers will be obtained.

The third set of criticisms made by Roizen and Jepson concerns the way in which information about employers' views is typically interpreted. This entails a neo-classical economist's view of the labour market which assumes:

> 'a conception of demand in which (i) employers have a full and perfect knowledge of the labour market; (ii) employers are rational and attempt to maximise profits; (iii) no employer represents a large enough part of the total demand for labour to affect wages; and (iv) employers act individually.'
>
> (Roizen and Jepson, p159)

The authors of this study are particularly doubtful about the knowledge base on which employers operate. This and other studies note that career development within companies appears not to be influenced by the same factors and qualifications that secured entry (although note the American experience by Pascarella and Terenzini referred to in

section two). Accordingly, employers tend not to analyse information about the relationship between the characteristics of graduates recruited and their subsequent job performance. If they are not monitoring the effects of their own recruitment decisions, employers are certainly not knowledgeable about the effectiveness of the decisions of other employers. Roizen and Jepson conclude that:

> 'Neo-classical economic theory not only assumes full knowledge, but also that employers recruit employees so as to maximise profits for the organisation. In practice, however, they do not know which graduates are likely to maximise profits or whether they will do so at all ...Current analyses of the operation of the market rely upon a number of simplifying assumptions which are either unsupported or are based on little or no evidence at all.'
>
> (ibid., p162)

Similar criticisms have been made in a more recent study by Brown and Scase, which concludes that higher education – through its recruitment processes and graduate employment outcomes – acts essentially as a 'status-confirming' activity, and that the enterprise culture of the 1980s has done little to undermine the status system and anti-industrial bias of British business. The authors conclude:

> 'In the context of the 1990s, the notion that "employers know best", sacrosanct in Conservative Party policy statements concerning education and training for over a decade, is a curious one, to say the least, in the British context. For over a century, employer commitment to education and training has been derisory when compared to competitor nations (Finegold and Saskice, 1990). The idea that employers know what their human resource needs are, and that these can be defined and operationalised in educational terms is unsubstantiated.'
>
> (Brown and Scase, 1994, p174)

If the messages from employers are not entirely clear, and if their validity and reliability are open to criticism, where does that leave us in determining employer wants and needs? Looking at the results of employers' actions – as opposed to their statements – whilst also subject to some of the above objections of lack of knowledge and rationality, at least provides some insight into a 'real' world of employment with which both higher education and its graduates will have to contend.

We will address this question in terms of the experiences of graduates in the next section. But we can anticipate some of the main conclusions with reference to the findings from studies of employers already referred to.

These studies give support for Teichler's contention of relatively high levels of 'horizontal substitution' in British employers' recruitment practices. Harvey et al, for example, note that:

> 'A major reason for employing graduates is to get bright, intelligent recruits. For many employers, intellect is more important than degree subject knowledge.'
>
> (Harvey et al, 1997, p65)

But how is intellect to be detected? What are its correlates? Here we find support for another contention by Teichler that, relative to other European countries, graduate employment in Britain is characterised by relatively low levels of 'vertical substitution'. In other words, where you studied does matter.

Roizen and Jepson's study in the 1980s concluded that most employers preferred to recruit graduates from universities rather than from polytechnics and preferred not to recruit college graduates at all (Roizen and Jepson, 1985, p170). What appears to be the post-binary situation in the 1990s?

At the start of the decade, the Association of Graduate Recruiters expressed concern that the graduate job market would 'stratify', 'to the disadvantage of those students who actually form a majority of enrolments' (AGR, 1993, p iii). The AGR was referring to the tendency of leading employers to focus their recruitment on a small number of elite higher education institutions or to overly rely on A-level scores.

Many of the studies and reports which describe what employers are 'looking for' in the graduates they recruit couch them in terms of characteristics of individuals, without considering whether these characteristics are evenly distributed across all higher education institutions, social classes, ethnic groups, etc. In fact, they are not. They are to be found particularly strongly among the graduates from traditional 'pre-1992' universities. And graduates from these universities are not representative of all social classes, ethnic groups, etc.

Brown and Scase discuss employers' recruitment strategies in terms of suitability, capability and acceptability. Criteria of suitability ('get the job done') vary significantly according to the nature of the company and the specific requirements of the job to be filled. Capability is about 'potential' and particularly about the recruitment of future 'leaders'. According to Brown and Scase, capability is about 'internal drive, energy, and ambition to "make things happen", to be a "shaper" rather than a "follower"' (ibid., p128). Acceptability is about personal skills and compatibility.

> 'The criteria of acceptability concern the degree of "social fit" in terms of outlook, interests, connections, style, dress, speech, which provide the "personal chemistry" required for a smooth transition into the organisation's way of doing things, based on personal compatibility with colleagues and clients.'
>
> (ibid., p130)

Brown and Scase argue that changes in work organisation within companies have led to an increased emphasis on acceptability, an emphasis closely related to the general debate about the importance of personal and transferable skills within higher education. It causes increased significance to be attached to social factors as well as, and possibly more than, academic qualifications. Looser forms of management control, emphasis on team work, work as a 'way of life' all give greater importance to the question of whether the new employee will 'fit in' (ibid., p133).

Thus it can be argued that the increasing emphasis being given to general personal attributes and skills (rather than specialist knowledge and technical proficiency) has major implications for who gets selected by employers. Graduates with a wide range of social skills, extra-curricular interests, confidence and connections will be the most sought after. Are these attributes which higher education can give to students? Or are they attributes which students bring into higher education? Either way, there is plenty of evidence to suggest that they are found in the graduates of some institutions more than others, and that employers' recruitment strategies work on this assumption. According to Brown and Scase, curricular innovation, work experience, skills training and other 'enterprise' initiatives taken by institutions represent a 'deficit model', a dubious attempt – in the view of the authors – to transmit by formal means attributes already possessed by some students, through previous family socialisation and education, and reinforced by the richer 'informal curricula of campus and college activities' (p43) available at older and more prestigious institutions.

> 'It is never made explicit to candidates that tennis and rowing exhibit energy and contribution, whereas playing snooker does not. They do not admit that girls with a working class Essex accent, and who are not into "power dressing", are invariably excluded, irrespective of their academic abilities.'
>
> (ibid., p142)

Thus, the labour market works in mysterious ways. To read off the implications for higher education institutions, or for policy makers at national level, presents many difficulties. It is, though, possible to argue that researchers such as Brown and Scase overstate their case. Do the values and practices found at the elite end of graduate recruitment continue in similar if less severe vein at all levels of recruitment? If we accept their argument that mass higher education is unlikely to give lower socio-economic groups access to the educational settings which in turn provide access to elite fast-track jobs, what then does it give access to? In the next section, we shall argue that higher education's role in the

reproduction of social elites can co-exist with an emancipatory and transformative role for a much larger group of students.

Graduates' experiences of employment

We have already recorded that graduates, compared with other sections of the population, are less likely to be unemployed and can expect to receive salaries that are considerably higher than the average. In this section, we consider whether this happy situation is enjoyed by all types of graduates. We also consider whether it disguises problems of underemployment, dissatisfaction with the kinds of job obtained, and deficiencies in the sorts of knowledge and skills needed to do the job well.

As we also noted earlier, it is important to distinguish between the success with which graduates are able to obtain jobs and the extent to which they have been suitably prepared to do these jobs. In considering both factors, it is also important to remember the increasing length of the transition period between higher education and employment experienced by many graduates. This makes 'first destinations' data a doubtful aid in considering these matters unless it can be demonstrated that difficulties experienced during the transition period are likely to be associated with unsatisfactory employment experiences over the longer term.

In assessing whether and why some graduates do better than others, it is necessary but difficult to distinguish between the effects of different factors. If black, female, middle-aged, sociology graduates from new universities do badly in the labour market, is it because they are black, because they are female, because they are middle-aged, because of the subject they studied, or because of the institution they attended? Few studies are able to tell us with any degree of certainty.

To give an example of the analytic difficulties involved, we addressed the multi-factor problem in a report prepared for the Commission for Racial Equality at the end of the 1980s (Brennan et al, 1990). Using national survey data collected as part of a study funded by the Council for National Academic Awards (Brennan and McGeevor, 1988; Brennan et al, 1993), we attempted to isolate the effect of ethnicity by comparing samples of Asian and Afro-Caribbean ethnic groups with UK European groups, matched on factors such as gender balance, age profiles, subject studied, institution attended and degree class obtained. In other words, they were matched on these factors in order to increase our confidence that differences in employment experiences could be attributed to the effects of ethnicity rather than any other factor. The results were striking. Differences which were not apparent from examination of the unmatched data became evident when other factors had been controlled. Of the Asian graduates, 21.7 per cent reported it had been 'very difficult to get any job'. This figure was almost identical to that of the (unmatched) sample as a whole at 20 per cent. However, a matched sample of white graduates who were otherwise similar to the Asian graduates produced a figure of only 11.1 per cent reporting that getting any job had been 'very difficult' (Brennan et al, 1990, p57). Asian students tend to take courses which have generally good employment prospects. Once this – and other intervening variables – had been controlled for, the experiences of the Asian graduates could no longer be viewed in such a positive light.

The above example is provided to illustrate some of the difficulties in interpreting differences between types of graduates and in identifying the relative effects of different educational and social factors. Many studies of graduate employment rely on aggregated data. When subject differences are reported, broad faculty groupings are frequently used. Thus, we are not told what proportion of 'social scientists' are economists or social workers, what proportion are men or women. And yet such factors may be crucial determinants of the employment experiences being reported.

Bearing these difficulties in mind, we now consider what is known about the factors related to *obtaining* employment. We will then go on to consider the factors related to *preparation* for employment.

The recent study by Belfield et al of graduates six years after leaving higher education reported relatively high percentages of graduates

BEST COPY AVAILABLE

experiencing a period of continuous unemployment over a period of 12 months – 13 per cent and 10 per cent for male graduates from the 1985 and 1990 cohorts respectively, with figures for female graduates of 10 and 7 per cent respectively (Belfield et al, 1997, p44). However, the authors of this report do not indicate when this unemployment was experienced. Given what we know from other data (see section one) about the low levels of graduate unemployment in general, it seems likely that these figures related to the transition period shortly after graduation.

A study of graduates from Sussex University (Connor et al, 1997) provides very useful breakdowns of unemployment rates over a six year period. For the graduating cohort in 1991, an unemployment rate of 15 per cent after six months had reduced to 9 per cent after two years, 4 per cent after four years and was thereafter constant at 3 per cent (Connor et al, p49). The figures reported from an earlier national study of unemployment rates six and nine years after graduation were even lower at 1 per cent (CNAA unpublished report, 1991).

Are there subject differences? The Sussex report noted unemployment rates six years after graduation of 4 per cent for pure scientists, 7 per cent for applied scientists, zero for social scientists and 2 per cent for graduates in the arts and humanities (op cit., p51). The CNAA study (which included university graduates and HNC/D holders as well as CNAA graduates) provided a more detailed subject breakdown which revealed 10 per cent of fine art and 11 per cent of combined science graduates unemployed after six years. All other subject groups had unemployment rates of 5 per cent or under.

Unemployment rates among new graduates also fluctuate according to the state of the economy at the time of graduation. Although graduates from the more 'elite' institutions are largely immune from these fluctuations, analysis of first employment destinations of polytechnic graduates in the 1980s showed fluctuations which mirrored fluctuations in the state of the national economy (Brennan and McGeevor, 1988). However, longitudinal studies do not indicate any longlasting effects of these fluctuations for the employment prospects of the graduates affected by them (ibid.).

Unemployment appears not to be a problem for most graduates in the long term. What about underemployment? Much is made in current debates about graduates entering jobs for which possession of a degree has not previously been necessary. However, this is not a new phenomenon. As higher education has expanded from the single figure participation rates of the post-war period to the present rates of around 35 per cent, new cohorts of graduates have inevitably spread into more parts of the labour market. This was particularly true of polytechnic graduates in the 1980s and several studies by the CNAA looked at the employment outcomes for these graduates (Brennan and McGeevor, 1988, Brennan et al, 1993).

These studies looked at the levels of jobs which university, polytechnic and college graduates were entering. The multi-dimensionality of the concept of a 'graduate' job is illustrated by Table 1. Only 28 per cent of the graduates believed that their current jobs (five years after graduation) were graduate level in the sense that they had traditionally been regarded as such, but 57 per cent thought that they were graduate jobs in that they needed a degree to get them. On the whole, university graduates were more likely than polytechnic graduates to believe that they were in graduate jobs. But it should be noted that polytechnic graduates were more likely than university graduates to believe that they 'possessed work expertise based on "knowledge and skills" from their degree course' (Brennan et al, 1996, p58).

Table 1: Graduates' perceptions of the level and status of their current jobs five years after graduation (multiple reply possible)

Present job 'graduate level' in sense that:	All	University	Polytechnic
i) Traditionally regarded as such	28	35	27
ii) A degree is an essential requirement in this area of work	26	30	26
iii) Nature of work requires graduate education	46	54	44
iv) Becoming graduate	15	14	16
v) Degree needed for this particular job	57	63	59
vi) Graduate possesses work expertise based on 'knowledge and skills' from degree	51	41	53
vii) Job requires possession of professional qualification	28	27	28

Source: Brennan et al, p58

Slightly more recent data are provided in the Sussex study. In 1997, four or six years on from graduation, 91 per cent of the graduates reported themselves as being in 'graduate level employment' in some sense of the term. More specifically, 67 per cent said a degree was helpful in getting a job, 62 per cent said the work they did required graduate ability, 43 per cent said the previous job holder had been a graduate, 54 per cent said that a degree was a formal entry requirement, 11 per cent said that entry was via a graduate training scheme (Connor et al, 1997, p18). The national survey by Belfield et al reported that 52 per cent of men and 57 per cent of women were in jobs six months after their graduation in 1985 that required a degree. For the later cohort of graduates from 1990, slightly higher figures of 57 per cent for men and 59 per cent for women were recorded (Belfield et al, op cit., p47).

The Sussex study asked whether the graduates felt themselves to be underemployed: 12 per cent felt 'very underemployed' and 37 per cent 'slightly underemployed'. The percentages feeling very underemployed from different subject groups were: biological sciences 11 per cent, physical sciences 20 per cent, mathematical sciences 4 per cent, none from engineering and technology, social sciences 10 per cent, and humanities and arts 19 per cent (ibid., p20). It must be remembered, however, that these were graduates from one university.

While many graduates are undoubtedly entering jobs for which degree-level education would have been unnecessary in previous decades, there is no strong evidence to support claims of widespread 'underemployment', at least from the perspectives of the graduates themselves. Moreover, the claims made for the characteristics of jobs in the 'knowledge society' – claims explicitly accepted by the governments of virtually all developed nations in their decisions to expand higher education – would not lead us to expect serious underemployment (Scott, 1995; Reich, 1992).

Several studies have collected information on the earnings of graduates. We have already noted in section two the generally high levels of graduate earnings compared with non-graduates. But there are important subject differences, as would be expected.

Belfield et al report salary differences between selected subjects. For the graduate cohort of 1990, an average salary of £12,910 for graduates under 24 at the time of graduation masked a high of £17,099 in clinical medicine and a low of £8,932 in sociology among men, and a high of £18,333 in clinical medicine and a low of £11,438 in sociology among women. However, the numbers of graduates in some groupings are very small (see table 2) (Belfield et al, 1997) and the figures for subject and gender differences should be treated with some caution.

BEST COPY AVAILABLE

Table 2: Annual mean FTE salary by selected degree subject (1990 graduates)

	Aged 20-24		Aged 25-29	
	Male	**Female**	**Male**	**Female**
Clinical medicine	17,099 (29)	18,333 (14)	21,398 (28)	22,988 (12)
Computer science	13,552 (57)	15,384 (6)	25,457 (62)	26,049 (7)
Mechanical engineering	14,434 (68)	15,943 (5)	23,661 (73)	22,722 (6)
Sociology	8,932 (7)	11,438 (8)	18,570 (13)	15,876 (8)
Business/Management	13,529 (64)	11,532 (57)	21,802 (79)	18,103 (72)
French	10,336 (7)	13,469 (42)	17,410 (10)	18,190 (44)
Average	12,910	12,786	20,650	19,006

Source: Belfield et al, op cit., p31

An earlier national study (Brennan et al, 1993) attempted to look at earnings in relation to institutional differences, social background and possession of a 'good' degree (first or upper-second). Table 3 summarises some interesting differences. First it can be noted that in all subjects university graduates were more likely than polytechnic graduates to have fathers in senior professional/managerial work. However, parental background did not appear to be strongly related to graduate salaries once the institution was controlled for. In all subjects, average salaries of university graduates were higher than those of polytechnic graduates. The differences were especially great in accountancy and economics. Having a good degree gave an earnings advantage, irrespective of institution attended, with the two exceptions of polytechnic biologists and economists (Brennan et al, 1996, p67).

Table 3: Family background and median salary after two years by background and degree classification (1985 cohort two years after graduation; median £)

	% of fathers in senior professional or managerial work	*Father worked as senior professional or manager*	*'Good' degree*	*Average salary*
Polytechnic accountancy	38	6,528	8,882	8,238
University accountancy	41	9,260	10,500	9,629
Polytechnic biology	28	7,316	7,203	7,360
University biology	40	7,750	8,717	7,978
Polytechnic economics	27	8,000	8,055	8,290
University economics	38	10,650	11,000	10,039
Polytechnic humanities	23	9,100	8,414	7,681
University history/English	34	8,239	8,500	7,985
Polytechnic mechanical engineer	28	10,270	10,234	9,955
University mechanical engineer	36	10,700	10,923	10,148
Polytechnic computing	30	10,740	11,894	10,487
University computing	35	11,000	11,200	11,006

Source: Brennan et al, 1996, p67

The same study also reported on salary differences five years after graduation for the same cohort. This suggests that salary differences according to type of institution attended increase with time. The salary differences between university and polytechnic trained accountants and economists had increased to almost £6,000 and the average difference between graduates from the two sectors was £2,000. Only for graduates in computing did differences in earnings appear to favour polytechnic graduates (ibid., p57).

The above paragraphs indicate something of the differences in employment experiences according to the subject studied in higher education and the type of institution attended. Another factor often claimed to be important is the inclusion of a period of work experience as part of the degree course. Analysis of first destinations data (Bowes and Harvey, 1999) and a study of job applications made by final year students (Purcell and Pitcher, 1996) suggest that work experience is conducive to a speedy transition into employment after graduation. An earlier study in the 1980s (Boys and Kirkland, 1988) suggested that work experience could go some way to compensating for various factors of 'disadvantage' (e.g. institution attended, class background) although failure to control fully for subject studied casts some doubt on this conclusion. During the 1990s, it has become much more common for students to combine study with part-time employment for purely financial reasons, thus creating a situation whereby most students will have acquired work experience by the time they graduate. Overall, the evidence seems to suggest that various forms of work experience and work preparation in higher education can be useful in achieving a smooth transition into employment but that advantages have disappeared after a few years in the labour market (Brennan et al, 1993).

We have concentrated so far on graduates' experiences in obtaining employment. Some studies of graduates also provide information on how well the graduates appear to have been *prepared* for their jobs.

The Sussex study reports that just over 30 per cent of the graduates were 'very satisfied' with the use they were making of their degree, and a further 44 per cent were 'satisfied to some extent'. 90 per cent were either 'very satisfied' or 'satisfied to some extent' with their skill development (Connor et al, 1997, p21). The same study reported a mean score of 2 (on a 5 point scale where 'a great deal of difficulty' scored 5 and 'no difficulty' scored 1) for graduates reporting a lack of necessary skills for their current job. Lack of training (2.54) and lack of supervision/direction (2.34) appeared to be more serious problems (Connor and Pollard, 1996, p79). Some institutions are now providing students with specific employment-related skills training. A recent study reports that students who had received such training were more likely than other students to report that they had put their skills to use when they first entered employment, but that the advantage had disappeared after a year or so (Purcell et al, 1999).

The CNAA studies asked graduates how far their work benefited from knowledge and skills gained from their degree courses: 68 per cent replied either 'a fair amount' or 'a great deal'. This figure was higher for polytechnic graduates (70 per cent) and lower for university graduates (62 per cent)

(Brennan et al, 1996, p59).

We might consider for a moment some data from outside the UK. A German study carried out in the 1980s reported that 72 per cent of graduates found a 'high' degree of correspondence between their higher education and work (ibid., p76) five years after graduation. This was comparable to the British figure of 68 per cent of graduates who reported that their work benefited from their higher education.

Are graduates satisfied? The study by Belfield reported 56 per cent of male graduates and 53 per cent of female graduates are satisfied with the usefulness of their degrees in 'getting an interesting job' (Belfield et al, 1997, p58). Forty-eight per cent of men and 44 per cent of women were satisfied with their degree in securing 'a good income' (ibid.). Yet over 70 per cent would do either the same or only a slightly different degree course again if given the chance. Only 1 per cent would not do a degree at all (ibid., p57). These figures are not very different from those reported by the CNAA studies nearly a decade earlier. Again, only 1 per cent

would not enter higher education, 68 per cent would have done the same course again and 31 per cent would have done a different course (Brennan et al, 1996, p59).

Finally, we return to the interesting Sussex graduates. High levels of satisfaction are reported in all respects: earnings 80 per cent, responsibility 89 per cent, career progression 78 per cent, use of degree 74 per cent, development of skills 90 per cent and overall career development 86 per cent (Connor et al, 1997, p22).

It is difficult to compare the results of different studies. Slight variations in the questions asked, in the response modes used, and in the way responses are grouped for analysis can create quite large differences in results. Nevertheless, the similarities of these studies, carried out over a 12 year period, seem to outweigh the differences:

- there is little long-term unemployment among graduates
- there are predictable subject-related differences in earnings
- there are also differences in earnings according to the type of institution attended and class of degree obtained
- around 40 per cent of graduates are in what might be considered to be non-graduate jobs
- around 70 per cent of graduates think that their work benefits from their higher education studies
- most graduates would choose to study the same or a similar degree course again and virtually all would enter higher education again.

Aggregated data disguise a wide variety of individual experiences, some of which are deliberately sought out by the individuals concerned, others which are forced upon them and others which are accidental. Six years after graduation still represents the first stages of a career and we have virtually no data which goes beyond that. The Sussex study provides an interesting insight into the common variations in experiences of recent graduates during this six year period (table 4).

Table 4: Most common career paths of Sussex graduates from 1991

	%
In employment at each stage	25
Further studies and then employment	10
Employment, further studies and then employment	8
Employment, unemployment and then employment	8
Unemployment and then employment	6
Further studies, unemployment and then employment	5

Source: Connor et al, 1997, p29 (IES/CDU Survey, 1997)

The end point in most cases is permanent full-time employment.

Between the aggregate data and the variations in experiences of individual graduates lie patterns in experiences according to factors such as subject studied and institution attended. Employers' reported preferences for the graduates of pre-1992 universities are supported by the data presented above. A more detailed breakdown of type of institution might be expected to reveal even sharper differences. Yet, as we noticed in a previous section, it is the post-1992 universities which have been more oriented towards preparation for employment. There remain major curriculum differences between the 'old' and 'new' universities. This is something which is picked up in the graduate data. Polytechnic graduates reported a somewhat closer relationship between their higher education studies and their subsequent employment. Thus, university graduates appeared to do better at obtaining employment while polytechnic graduates felt better prepared for it.

The more recent of the studies referred to above appear broadly to confirm the results of previous work. In other words, expansion of student numbers does not seem to have brought a sea change in the employment experiences of graduates. The imminent results of studies of graduates who left higher education in the mid 1990s might show a different picture. In particular, the EU funded study of graduate employment experiences in 10 countries will enable comparison to be made between the experiences of British and other European graduates. (The project, entitled Higher Education and Graduate Employment in Europe, is part of the EU Targeted Social and Economic Research programme.)

Employability and its measurement

Based on their review of the relevant literature for the DfEE, Hillage and Pollard have recently offered the following definition of employability:

> 'Employability is the capability to move self-sufficiently within the labour market to realise potential through sustainable employment. For the individual, employability depends on the knowledge, skills and attitudes they possess, the way they use those assets and present them to employers and the context (e.g. personal circumstances and labour market environment) within which they work.'
>
> (Hillage and Pollard, 1998, p xi)

But the individual's employability will crucially be influenced by how employers view the knowledge, skills and attitudes he or she possesses. If employers do not value these attributes or do not know how to use and develop them, the individual's employability will remain low however much education and training s/he acquires. This is why the contradictions and ambiguities about what employers want from their graduate recruits pose problems for higher education. Put much too crudely, employers say they want the sorts of graduates which the new universities believe they are producing, but they actually prefer to select the graduates which the pre-1992 universities produce. But just as it is dangerous to talk about graduate experiences in the aggregate, so too it is dangerous to talk about employers in the aggregate. Better knowledge of diversities among employers as well as within higher education is required in order to achieve more effective communication and understanding between the two sectors of society. Better self-knowledge within each sector is a pre-requisite for this to happen.

Employability is multi-dimensional. Hillage and Pollard distinguish between a person's 'assets', their 'deployment', their 'presentation' and their 'context'. Each of these dimensions has many sub-dimensions. In much of the literature on the topic, employability is equated with being employed. Thus, relative unemployment rates among different groups of graduates six months after graduation are sometimes used to calculate the 'employability' of these different groups. But comparable data collected two or three years later would show that virtually all graduates are 'employable'.

'Speed' into employment could be regarded as one measure of employability, but recall the Sussex study – 60 per cent taking some form of further study within five years of graduating. Recall the young average age of British graduates compared with graduates from other countries. A measure taken at an extremely unstable moment in a process will not be a reliable one. The first couple of years after graduating are a very unstable period in the process of developing a career. We also note from the Sussex study that periods of unemployment during the early years after graduation are not uncommon, but they occur at different times for different graduates. Unemployment after six months equals poor employability? Unemployment after 12 months indicates no such thing? Yet Connor et al point out that, at least as far as Sussex graduates are concerned, it is unlikely to be the same graduates who are unemployed at these different points in time.

What are indicators of employability really meant to indicate? Direct comparison of economics and nursing graduates is an apples and pears comparison. It tells us something about the labour market but little about the people concerned or the institutions which educated them. Indicators of the employability of graduates need to control for subject of study if the results are to be useful for higher education policy. (This does not mean that some between-subject comparisons cannot or should not be made, but they need to take account of the different kinds of relationships between higher education courses and the labour market [see section three above].

Indicators of employability of different groups of graduates in terms of obtaining a job might include some or all of the following:

- speed into employment (unemployment rate after a stipulated time)
- degree of horizontal substitution (range of job types entered – more implies higher employability)
- earnings

BEST COPY AVAILABLE

- job level/seniority (difficulties in measurement but important in long term)
- work demands (graduate perceptions of level of job).

Indicators of employability in terms of suitable preparation for a job might include some or all of the following:

- match between degree course and type of job (in terms of course aims)
- graduate (and possibly employer) perceptions of knowledge/skills deficiencies
- graduate perceptions of course relevance.

All such data are relatively easy to collect, although a different picture of employability will emerge according to when they are collected. To make sense of them, they should be related to course aims and labour market contexts (including regional differences). The kind of value added calculation which compares actual data for a sub-population (e.g. business studies graduates at institution X) against forecasts or targets derived from knowledge of the relevant population (e.g. all business graduates) is useful in this respect (CNAA/PCFC, 1992; Cave et al, 1997).

Different kinds of numerical data can always be converted into a single score and this is clearly useful when the aim is to make comparisons, e.g. institution X produces graduates who are more employable than the graduates from institution Y. The important thing is to ensure that the score itself is derived from multiple measures, such as those suggested above. However, the single score is likely to be of little or no use to institution Y in helping it to improve the employability of its graduates. Here a breakdown of the various dimensions of employability is necessary in order to identify where the nature of the problem lies: e.g. inadequate preparation – a curriculum problem; difficulties obtaining a job – careers service, institutional reputation, etc.

Matters such as the above can be the focus of investigation in higher education institutions during periodic review processes, whether internal or external. For example, the Centre for Quality Assurance and Evaluation in Denmark devotes approximately half of its operational resources to studies of graduate employment experiences, the results of which are considered alongside the outcomes of peer review evaluations in that country's quality assurance system. The incorporation of graduate employment experiences into the subject review processes currently being developed by the Quality Assurance Agency would seem to be a useful way forward. It would ensure that employment data were not used out of context. Greater validity would attach to any summative evaluations which resulted from the process. Such an approach would also be in line with the recommendations of much of the literature on performance indicators, which suggest that indicators are most useful as "triggers" to identify possible problems for investigation (e.g. Cave et al, 1997; Yorke 1998).

Summary and conclusions

Employers

Studies of employers suggest that they want graduates who are flexible, adaptable people with good communication and other general skills. But long-term concerns about shortages of specialists continue. Studies of employers suggest that what they get from graduates are people with good cognitive skills and knowledge. There are considerable similarities in the statements made by employers over the last 20 years. There are also considerable differences between employers, and biases towards the views of general managers and personnel staff in larger organisations.

The actions of employers, as indicated by the experiences of different kinds of graduates in the labour market, suggest that the institution attended by the graduate is important as is the subject studied. However, as the subject profiles of the pre-1992 and the post-1992 universities are very different, it is not always easy to distinguish between institution and subject effects. Comparisons with other European countries suggest that institution attended matters rather more in the UK (low levels of vertical substitution) and subject studied matters rather less (high levels of horizontal substitution).

Graduates

The employment experiences of graduates appear to follow firmly trends established in the 1980s. After the two or three year period of transition, there is little graduate unemployment. Average earnings remain high when compared with those of non-graduates. A majority of graduates take some further study after their first degree, although not necessarily immediately after it. A majority of graduates find their degree studies useful to their work in some way, although this work may not always have been considered to be 'graduate-level' employment. (The traditional looseness of match between degree courses and employment in the UK should be borne in mind in considering the 'usefulness' of degrees.)

Data from new studies of graduates in the 1990s will establish whether these relationships are being maintained. The EU sponsored study of graduate employment in different European countries will show how far the experiences of British graduates are shared by their counterparts elsewhere in Europe.

Employability measures

To have any validity, indicators of employability need to be multi-dimensional and to distinguish between factors relevant to obtaining a job and factors relevant to preparation for work. The inclusion of employability issues within the arrangements for subject review being developed by the QAA would ensure that employability indicators were not considered out of context.

Some remaining questions

Both higher education and the labour market have changed substantially over the last 20 years. Yet this review of graduate employment shows many continuities in the relationship between them, both in the issues raised in public debate and in the findings of available research. Perhaps the point to emphasise is that change is part of those continuities. Some contributors to recent debates seem to express surprise that today's graduates are going into different kinds of jobs from those of their predecessors. But it was ever thus. Over the years, higher education has prepared graduates for a life in the clergy, to run an empire, to create a welfare state, to work in business and financial institutions, in industry and the professions, in schools, in the public and private utilities, and so on. Each cohort of new graduates faces a somewhat different labour market from that of its predecessor.

All the available evidence suggests that graduates are privileged participants in the labour market. Why this is so is open to dispute. Graduates are not an average cross-section of society. They are a section of society distinguished by particular social and biographical characteristics as well as by whatever talents, knowledge and skills have been fostered by the education system. Their successes in the labour market are determined by all of these things. If you are an economist, you will see these successes as the workings of market mechanisms. If you are a sociologist, you may see these successes as part of broader processes of social reproduction, as

'status confirmation' in the words of Brown and Scase. Both are valid perspectives although with rather different policy implications.

Many employers are recruiting graduates for the first time, to new roles within new kinds of organisation and in new market conditions. Do graduates make a difference? Do some kinds of graduates make more of a difference than others? As Roszen and Jepson noted almost 15 years ago, there remains 'a high ratio of value to fact' in the available answers to these questions.

One limitation to much of the debate about graduate employment is that it assumes that graduates are young people at the start of their careers, that the role of higher education is to provide initial preparation for entry to the labour force. While this remains true for large numbers of graduates, the relationship between higher education and the labour market needs also to take account of the many people for whom initial higher education, whether studied full-time or part-time, occurs later in life, after a substantial period of experience in employment, as well as the many people who return to higher education for postgraduate and post-experience study. The subsequent employment experiences of such people have been investigated hardly at all. (A study for the DfEE by the Centre for Higher Education Research and Information has recently reported on the employment effects of part-time undergraduate study.)

The above observation should also serve to remind us of the long-term nature of the effects of higher education upon employment. Amid all the concerns to improve the employment-related skills of new graduates when they enter their first jobs after graduation, the skills which they are going to need over the next 20, 30 or even 40 years might also be remembered.

References

AGR, 1993, *Roles for Graduates in the Twenty-First Century*, Cambridge: Association of Graduate Recruiters.

Bee M and Dolton P, 1990, 'Patterns of Change in UK Graduate Unemployment, 1962-87', *Higher Education 28*.

Belfield C, Bullock A, Chevalier A, Fielding A, Siebert W, Thomas HR, 1997, *Mapping the Careers of Highly Qualified Workers*, University of Birmingham/HEFCE.

Bowes L and Harvey L (1999) The Impact of Sandwich Education on the Activities of Graduates Six Months Post Graduation. Birmingham: Centre for Research into Quality, University of Central England in Birmingham

Boys C, Brennan J, Henkel M, Kirkland J, Kogan M, Youll P, 1988, *Higher Education and the Preparation for Employment*, London: Jessica Kingsley.

Boys C and Kirkland J, 1988, Degrees of Success. *Career Aspirations and Destinations of College*, University and Polytechnic Graduates, London: Jessica Kingsley.

Brennan J and McGeevor P, 1988, *Graduates at Work: Degree courses and the labour market*, London: Jessica Kingsley.

Brennan J and McGeevor P, 1990, *Ethnic Minorities and the Graduate Labour Market*, London: Commission for Racial Equality.

Brennan J, Lyon ES, McGeevor P, Murray K, 1993, *Students, Courses and Jobs: The relationship between higher education and the labour market*, London: Jessica Kingsley.

Brennan J, Kogan M, Teichler U, 1995, *Higher Education and Work*, London: Jessica Kingsley.

Brown P and Scase R, 1994, *Higher Education and Corporate Realities*, London: UCL Press.

Cave M, Hanney S, Henkel M, Kogan M, 1997, *The Use of Performance Indicators in Higher Education (3rd Edition)*, London: Jessica Kingsley.

CNAA/PCFC, 1991, *The Calculation of Value Added in Higher Education*, London: Council for National Academic Awards.

CNAA, 1991, *Survey of 1982 and 1985 Graduates and BTEC Higher National Diplomates*, unpublished report.

Connor H and Pollard E, 1996, *What do Graduates Really Do?* Brighton: Institute for Employment Studies.

Connor H, LaValle I, Pollard E, Millmore B, 1997, *What do Graduates do Next?* Brighton: Institute for Employment Studies.

Court G and Connor H, 1994, *The US Labour Market for New Graduates*, Brighton: Institute of Manpower Studies.

Dearing Report, 1997, *Higher Education in the Learning Society*, Norwich: HMSO.

DfEE, 1997, *Recruitment and Utilisation of Graduates by Small and Medium Sized Enterprises*, Norwich: HMSO.

Harvey L, Moon S, Geall V, 1997, *Graduates' Work: Organisational change and students' attributes*, Birmingham: University of Central England.

Hillage J and Pollard E, 1998, *Employability: Developing a Framework for Policy Analysis*, Sudbury: DfEE Publications.

Kelsall K, Kuhn A and Poole A, 1972, *Graduates: The sociology of an elite*, London: Tavistock/Methuen.

Lindley R (ed.), 1981, *Higher Education and the Labour Market*, Guildford: Society for Research into Higher Education.

OECD/CERI, 1997, *Education at a Glance: OECD Indicators*, Paris: OECD.

OECD/CERI, 1998, *Education at a Glance: OECD Indicators*, Paris: OECD.

Pascarella E and Terenzini P, 1991, *How College Affects Students*, San Francisco: Jossey Bass.

Pearson R, 1984, *Graduates and Employment*, CRAC, GET '85:2000 Employers.

Purcell K and Pitcher J, 1996, *Great Expectations: the new diversity of graduate skills and aspirations*. Warwick: CSU-AGCAS-IER.

BEST COPY AVAILABLE

Purcell K, Pitcher J and Simm C, 1999, *Working Out? Graduate early experiences of the labour market*, Manchester: Central Services Unit.

Reich R, 1992, *The Work of Nations*, New York: Vintage Books.

Roizen J and Jepson M, 1985, *Degrees for Jobs: Employer expectations of higher education*, Guildford: SRHE and NFER-NELSON.

Sanyal B, 1987, *Higher Education and Employment: An international comparative analysis*, Lewes: Falmer Press.

Scott P, 1995, *The Meanings of Mass Higher Education*, Buckingham: Open University Press.

Silver H and Brennan J, 1988, *A Liberal Vocationalism*, London: Methuen.

Teichler U, 1996, *Higher Education and Graduate Employment in Europe*, Kassel: Centre for the Study of Higher Education and Work.

Teichler U, 1998, *Higher Education and the World of Work: Changing conditions and challenges*, paper for the UNESC World Conference on Higher Education, Paris.

Teichler U, 1998(a), *Graduate Employment and Work in Selected European Countries*, Kassel: Centre for the Study of Higher Education and Work.

Yorke M, 1998, Performance indicators relating to student development: can they be trusted?, *Quality in Higher Education 4*, pp45-61.

John Brennan, Director
Centre for Higher Education Research and Information
The Open University
344-354 Grays Inn Road
LONDON
WC1X 8BP
Tel 0207 278 4411
Fax 0207 837 0290

Higher Education Funding Council for England
Northavon House
Coldharbour Lane
BRISTOL
BS16 1QD
Tel 0117 931 7123
Fax 0117 931 7463

Further copies of this report are available from
HEFCE Publications, price £5, at the address above.

ISBN: 1 902 369 300